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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,642	04/12/2004	Craig R. Horne	3275.06US03	1933
62274 7590 06/18/2007 DARDI & ASSOCIATES, PLLC 220 S. 6TH ST. SUITE 2000, U.S. BANK PLAZA MINNEAPOLIS, MN 55402			EXAMINER HOFFMANN, JOHN M	
			ART UNIT 1731	PAPER NUMBER
			MAIL DATE 06/18/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/822,642	Applicant(s) HORNE ET AL.	
	Examiner John Hoffmann	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2007.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20,22,23,25,26,28-39,41 and 43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20,22,23,25,26,28-39,41 and 43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 22-23, 29-30 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. These claims limit a subsequent claim, not a previous claim.

Applicant is reminded that objections are not appealable matters – petitions relating thereto must be filed concurrently with any appeals. In other words: objections are not held in abeyance. Time limits to correct/petition objections are not stopped by filing appeals. Applications can be held abandoned for failure to correct/petition objections even though rejections are being appealed.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 20,22,23,25,26,28-39,41 and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It unclear if the density is suppose to be interpreted as being a value between 0.02 and 0.55, or if the literal meaning that it goes "from" 0.02 to 0.55 (i.e. it starts out as 0.02 and then reaches 0.55.)

Claim 20, line 5-6: there is confusing antecedent basis for "the coating composition" – it is unclear if it is the same thing as the "oxide composition". Claim 31 there is no antecedent basis fort "the coating composition" – it is unclear whether it is the same thing as "the coating". Furthermore, when comparing claims 31 and 20, it is unclear whether all three terms are used to describe the same thing.

Claim 25: there is confusing antecedent basis for "particles" and "average primary particle diameter": it is unclear if they are same particles and diameter as required by claim 20.

Claims 41 and 43: there is confusing antecedent basis for "an average density" and "factor" – it is unclear if they are the same density and factors as specified in claim 20 and 31 – or if they are additional densitites and factors.

Claim Rejections - 35 USC § 103

Claims 20, 22-23, 28-30, 39, 41 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hicks 4749396 in view of Miller 4501602, Berkey 4684384 and Kobayashi 3957474.

See how Hicks, Berkey, Miller and Kobayashi were previously applied.

Claims 31-38, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hicks 4749396 in view of Miller 4501602, Berkey 4684384, Kobayashi 3957474 and Bi 5958348.

See the prior Office actions for the manner in which the references were applied.

Response to Arguments

Applicant's arguments filed 01 May 2007 have been fully considered but they are not persuasive.

Regarding the claim objection, applicant argues that the claims are in proper form for examination. This is a conclusion with no rationale given to support it. Applicant gives no indication as to how the claims comply with 37 CFR 1.75 (c). Nor does applicant point out any error in the objection. The fact that the claims further limit parent claims is immaterial as to whether they further limit a previous claim. The fact that claims are "often improper" does not negate the requirement that claims comply with the rules and statutes.

It is argued that the range (0.02-0.55) required by the claims includes the end values and all values between the end values. This is largely irrelevant. The rejection is based on the unclarity as to what the claim requires regarding the range. It can mean various things. It could be that it requires the average be in the range. It could be that the localized average starts out at 0.02 and then ranges up to 0.55. To put it another way: a density is usually a single value; a range is usually plural values. The claim

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requires that the density is a range. The only way a density can "be" a range is by the density being a function that covers all values in the range. In still other terms: it would appear that one could copy applicant's invention by not having "an average density that is a factor from 0.02 to about 0.55" – for example a factor of exactly 0.4 is not "from about 0.02 to about 0.55" – rather it is a factor which is "between about 0.02 to about 0.44". Although applicant argues the meaning is plain, applicant fails to point out or explain what that meaning would be.

It is argued that the prior art references do not teach the particle diameter of no more than 500 nm or the 0.02-0.55 density factor. The 4/4/2006 clearly points out how the diameter limitation would have been obvious. As to the density factor: it is clear that when the coating is sintered, it would start out as 0% sintered and end up 100% sintered. It would inherently pass through all values from 0% to 100% - including about 0.02 and about 0.55 and all values between – thus it has a factor that goes "from about 0.02 to about 0.55".

IT is also argued that a "pending application" (with an obligation) is not prior art. This does not appear to be relevant because the rejection is not based on any pending application.

Applicant also argues that Miller's compaction would not be consistent with the low ranges of density being claimed. This is not convincing, because the present claim only requires powder goes through a single range of densities. Moreover, applicant gives no rationale to explain why the density would not be consistent.

Still further as indicated by MPEP 2131.03 – when the prior art teaches a broad range, and a application has an overlapping range, there can be anticipation. Presently, it is inherent that the prior reference has a density between 0.00 and 1.00. Applicant's range of 0.02 and 0.55 covers over half of the inherent range. It is deemed that Applicant's invention does not distinguish over the prior art.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

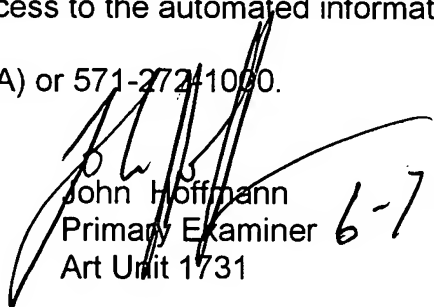
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


John Hoffmann
Primary Examiner
Art Unit 1731

6-7-07

jmh